

CLAIMS

1. A self-contained foam dispensing device, comprising:
 - 5 a casing;
 - a mixing chamber;
 - a port adapted to receive one or more containers including a plurality of chemicals in a plurality of compartments, such that when the one or more containers are in the port the one or more containers move with movement of the casing; and
 - 10 a flow generator adapted to induce flow of chemicals from the compartments toward a mixing chamber, the flow generator being located between the mixing chamber and the port.
2. A device according to claim 1, wherein the flow generator comprises a pump.
3. A device according to claim 1, wherein the dispensing device is designed to be hand held, with the one or more containers, by a user.
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4. A device according to claim 1, wherein the one or more containers comprise two containers.
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5. A device according to claim 1, wherein the one or more containers comprise a single container divided into a plurality of compartments.
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6. A device according to claim 1, wherein the casing defines one or more recesses adapted to receive the containers within the casing.
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7. A device according to claim 6, wherein the recesses are adapted to receive containers of a plurality of different sizes, operatively connected to the port.
8. A device according to claim 1, wherein the dispensing device with the one or more full containers, weighs less than 5 kilograms.
9. A device according to claim 1, wherein the flow generator comprises separate pumps for each of the chemicals.

10. A device according to claim 1, wherein the flow generator includes one or more sets of suction gears.

5 11. A device according to claim 1, wherein the flow generator pumps the chemicals out of the containers at different rates.

12. A device according to claim 1, wherein the chemicals pumped by the flow generator reach a pressure above 5 atmospheres.

10 13. A device according to claim 1, comprising one or more heaters adapted to heat the chemicals in the containers.

15 14. A device according to claim 1, comprising one or more heaters adapted to heat the chemicals flowing from the containers.

15. A device according to claim 1, wherein the mixing chamber is detachably attached to the casing.

20 16. A device according to claim 1, comprising a nozzle through which the mixed chemicals are released to the environment.

17. A device according to claim 16, wherein the nozzle comprises a material to which foam does not substantially adhere.

25 18. A device according to claim 16, wherein the walls of the nozzle are flexible.

19. A device according to claim 16, wherein the nozzle is usable over a plurality of separate foam generating sessions.

30 20. A device according to claim 1, wherein the compartments are substantially rigid.

21. A device according to claim 1, wherein the mixing chamber is defined by flexible walls.

22. A device according to claim 1, wherein the mixing chamber is expanded by the
5 pressure of streams of chemicals pumped from the containers.

23. A device according to claim 22, wherein the mixing chamber is expanded from a substantially zero volume when the flow generator is not operating to a larger volume, when the flow generator is operating.

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24. A device according to claim 1, comprising at least one pressure valve along the path from the containers to the mixing chamber.

25. A device according to claim 1, comprising at least one pusher adapted to push the
15 chemicals in the at least one container toward an exit of the container.

26. A foam dispensing device, comprising:

a casing;

20 a port adapted to receive one or more containers including a plurality of chemicals in a plurality of compartments; and

a detachable foam mixing chamber, easily detachable from the casing without use of tools, in which chemicals from the plurality of compartments are mixed,

wherein the dispensing device with the one or more containers is hand held.

25 27. A device according to claim 26, wherein substantially all portions of the dispensing device that come in contact with the chemicals after they are mixed are included in a single detachable element with the mixing chamber.

28. A device according to claim 26, comprising a heater for heating the chemicals in the
30 compartments.

29. A device according to claim 26, comprising a motor within the casing which operates one or more pumps to pump the chemicals from the compartments to the mixing chamber.

30. A base for a foam dispensing device, comprising:
a niche for receiving the dispensing device;
a battery charger adapted to charge a battery of the dispensing device while the
5 dispensing device is in the niche;
at least one compartment for receiving a container including a chemical used in
generating foam by the dispensing device; and
a heater adapted to heat the contents of the container in the at least one compartment.

10 31. A base according to claim 30, comprising at least one storage compartment for
receiving a chemical container, wherein the chemical in the container in the storage
compartment is not substantially heated while in the storage compartment.

15 32. A bag for generating foam, comprising:
a plurality of bag chemical compartments separately including chemicals which mix
together into foam;
an empty bag compartment; and
a nozzle coupled to the bag adapted to lead the chemicals from the plurality of
chemical compartments to the empty compartment in a manner which causes the chemicals to
20 mix and turn into foam.

33. A bag according to claim 32, comprising a disposable pump coupled to the bag.

25 34. A bag according to claim 32, wherein the empty compartment has a sufficient volume
to accommodate foam generated by mixing most of the chemicals in the plurality of chemical
compartments.

30 35. A bag according to claim 32, comprising at least one tube leading from the chemical
compartment to the empty compartment, which tube is adapted to operate with a peristaltic
pump.

36. A foam dispensing device, comprising:
a mixing chamber;

a flow generator adapted to induce flow of chemicals to the mixing chamber, the flow generator being included in a single replaceable part with the mixing chamber; and

a base portion, including a motor, which base portion only includes elements that do not come in contact with the chemicals.

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37. A device according to claim 36, wherein the base portion includes a heater.

38. A device according to claim 36, wherein the single replaceable part is detachable from the base portion without use of tools.